

Abstract Submitted  
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**Mapping Gluon PDFs with Diffractive Vector Meson Leptoproduction at eRHIC** MICHAEL SAVASTIO, Stony Brook University — Here we compare predictions for diffractive vector meson production from two different non-perturbative saturating dipole models both with each other and with perturbative QCD for both  $e+p$  and  $e+A$  and study their sensitivity to the gluon PDF  $g(x, Q^2)$ . We also discuss opportunities for studying gluon PDFs with diffractive physics at a future Electron Ion Collider.

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